Biological Environment

2.15 Biological Environment

The analysis of potential impacts of the proposed project on biological resources is based on the *Natural Environment Study* (NES) (September 2010).

Analysis of the potential impacts of the proposed project on biological resources considered the following categories of resources:

- Natural Communities (Section 2.15)
- Wetlands and Other Waters (Section 2.16)
- Plant Species (Section 2.17)
- Animal Species (Section 2.18)
- Threatened and Endangered Species (Section 2.19)
- Invasive Species (Section 2.20)

The following sections describe applicable regulatory settings; existing environments; impacts; and avoidance, minimization, and mitigation measures for these categories of biological resources.

The Biological Study Area (BSA) extends approximately 6 linear miles along I-5 (Figure 1). The northern part of the BSA is in the City of San Juan Capistrano on I-5 at San Juan Creek Road. The BSA's southern terminus is at Avenida Pico in the City of San Clemente. The BSA extends beyond the maximum area of potential direct effect where necessary to identify sensitive biological resources within and immediately adjacent to the study area, but it is limited to within the Department ROW due to lack of access permission. In general, this provided for a survey area that was larger than the area of potential direct effect.

The project segment of I-5 and the BSA traverse parts of the Cities of San Clemente, Dana Point, and San Juan Capistrano in Orange County. The northern part of the BSA is in the City of San Juan Capistrano on I-5 at San Juan Creek Road. The BSA's southern terminus is at Avenida Pico in the City of San Clemente. The BSA includes existing I-5 (Department ROW), which is surrounded by transportation, residential, recreation, commercial, and undeveloped land uses. San Juan Creek passes under the northern end of the BSA.

2.15.1 Natural Communities

2.15.1.1 Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act (FESA) are discussed later in this document in Section 2.19, Threatened and Endangered Species. Wetlands and other waters are discussed in Section 2.16. Specific plant species and animal species are discussed in Sections 2.17 and 2.18, respectively.

2.15.1.2 Affected Environment

Seven vegetation communities were identified within the BSA and are shown on the biological resources figure in Appendix I of the NES. Several of the areas are a mixture of these vegetation communities. Table 2.15-1 lists the acreage of each of the vegetation communities present within the BSA.

Table 2.15-1 Vegetation Communities Occurring in the BSA

Vegetation Community	Total Acres
Scrub and Chaparral Habitats	
Coastal Sage Scrub	11.57
Riparian and Woodland Habitats	
Riparian Scrub	1.03
Freshwater Marsh	0.19
Disturbed Habitats	
Ruderal	48.83
Developed	231.69
Bare Ground	4.57
Ornamental	124.99
Total	**422.87**

Source: *Natural Environment Study*, September 2010.
BSA = Biological Study Area

Two general natural community groups of special concern were identified within the BSA: riparian/riverine habitats and coastal sage scrub (CSS). Several patches of CSS were identified on both sides of the State ROW in the following areas: (1) north of the

Camino Las Ramblas/SR-1/Via Sacramento arterial interchange; (2) along the west side of the State ROW, just south of the Camino de Estrella arterial interchange; (3) on the west side of the State ROW, just north of the Avenida Vista Hermosa arterial interchange; and (4) on the north side of I-5, northwest of Avenida Pico. Although the areas are disturbed, they are of good quality. Two riparian/riverine natural communities of special concern occur in the BSA: riparian scrub and freshwater marsh. These riparian communities occur at a few areas along I-5 within the BSA. Riparian scrub vegetation occurs along the east side of the State ROW, north of the Camino Las Ramblas/SR-1/Via Sacramento interchange, and on the west side of the State ROW, just north of the Avenida Vista Hermosa arterial interchange. Freshwater marsh vegetation was found in one area on the west side of the State ROW, just south of the Camino de Estrella interchange. In addition, a restoration area (Stonehill Drive Restoration Area) is located in the NB I-5 State ROW just south of Stonehill Drive. This restoration was put in place as a requirement of ACOE Nationwide Permit No. SPL-2006-1961-SJH, CDFG Streambed Authorization Agreement No. 1600-2006-0405-R5, and RWQCB Cleanup and Abatement Order No. R9-2-6-131. Additional information regarding the Stonehill Drive Restoration Area is provided in the Jurisdictional Delineation. All of these areas are highly degraded by nonnative invasive species and human encroachment and are of poor quality.

Other than bands of riparian habitat that many animal species use as wildlife corridors, there are no wildlife corridors within the BSA.

2.15.1.3 Environmental Consequences

Temporary Impacts

Alternative 1 – No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the study area. Therefore, the No Build Alternative would result in no adverse impacts related to natural communities.

Build Alternatives 2 and 4 – Design Options A and B

The I-5 HOV Lane Extension Project Build Alternatives will result in a direct temporary impact to 0.31 ac of CSS for Design Option A and 0.32 ac of CSS for Design Option B. Areas of temporary effects will only be affected during construction to allow for construction and equipment staging. Temporary effects to CSS will be limited to incidental encroachment; otherwise, effects are considered

permanent. Additionally, a small quantity of these temporary impacts to CSS (0.018 ac) will be within coastal California gnatcatcher (CAGN) designated critical habitat.

The Build Alternatives are not expected to result in direct temporary impacts to riparian/riverine habitats through disturbance and/or temporary removal of existing vegetation. Construction of any of the Build Alternatives may result in indirect temporary impacts to CSS and riparian/riverine habitats during construction due to increased noise, traffic, and litter. However, with implementation of Minimization and Avoidance Measures and Source Control BMPs, indirect temporary impacts are not anticipated.

Permanent Impacts

Alternative 1 – No Build Alternative

The No Build Alternative proposes no construction or other disturbance in the study area. Therefore, the No Build Alternative would result in no adverse impacts related to natural communities.

Build Alternatives 2 and 4 – Design Options A and B

The I-5 HOV Lane Extension Project would result in direct permanent impacts to CSS and riparian/riverine habitat through disturbance and/or removal of existing vegetation. Permanent impacts may include complete removal and extensive encroachment that may have substantial detrimental impacts to the long-term viability of the community and the plant and animal species associated with these natural communities.

Table 2.15-2 shows the amount of CSS that will be permanently impacted by each Build Alternative.

Table 2.15-2 Permanent Project Impacts to CSS by Build Alternative

Vegetation Type	Alternative 2		Alternative 4	
	Design Option A (ac)	Design Option B (ac)	Design Option A (ac)	Design Option B (ac)
CSS	0.5	0.5	0.4	0.4

Source: *Natural Environment Study*, September 2010.
ac = acre
CSS = coastal sage scrub

Table 2.15-3 shows the amount of riparian/riverine habitat that will be permanently impacted by each Build Alternative.

Table 2.15-3 Permanent Project Impacts to Alternative Riparian/Riverine Habitats by Build Alternative

Vegetation Type	Alternative 2		Alternative 4	
	Design Option A (ac)	Design Option B (ac)	Design Option B (ac)	Design Option A (ac)
Riparian Scrub	0.07	0.07	0.07	0.07
Freshwater Marsh	0.0	0.0	0.0	0.0
Total Impacts	**0.07**	**0.07**	**0.07**	**0.07**

Source: *Natural Environment Study*, September 2010.
ac = acre

However, based on the surveys and analysis completed for the Jurisdictional Delineation (August 2010), these direct permanent impacts to riparian/riverine habitats were found to not be subject to jurisdiction under Sections 404 and 401 of the CWA or under Section 1600 of the California Fish and Game Code. Because impacts to these nonjurisdictional areas were found to not be subject to jurisdiction, no compensatory mitigation is expected to be required under CEQA. However, if the agencies assert jurisdiction over an area previously found to not be subject to their jurisdiction and the project impacts this area, compensatory mitigation may be required.

Site Design, Source Control, and Treatment BMPs will be incorporated into the project to help avoid, minimize, and mitigate potential indirect adverse impacts to CSS and riparian/riverine communities.

The I-5 HOV Lane Extension Build Alternatives are not expected to substantially increase indirect permanent impacts to CSS and riparian/riverine communities.

Implementation of Alternatives 2 and 4, Design Options A and B, will not result in any impact to wildlife corridors because there are no wildlife corridors within the BSA.

2.15.1.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures will avoid, minimize, or mitigate potential temporary and permanent project impacts to natural communities.

The following measures will be incorporated to avoid and minimize project impacts to both CSS and riparian/riverine habitats.

BIO-1 Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around riparian and riverine communities adjacent to the project disturbance limits to designate Environmentally Sensitive Areas (ESAs) to be preserved. No grading or fill activity of any type will be permitted within ESAs. In addition, no construction activities, materials, or equipment will be allowed within ESAs. All construction equipment will be operated in such a manner as to prevent accidental damage to nearby ESAs. No structure of any kind, or incidental storage of equipment or supplies, will be allowed in ESAs. Silt fence barriers will be installed at the ESA boundaries to prevent accidental deposition of upstream fill material into areas where vegetation is immediately adjacent to planned grading activities.

BIO-2 In order to avoid impacts to nesting birds, any native or exotic vegetation removal, tree trimming activities, or bridge demolition will occur outside of the nesting season. The nesting season is from February 15 to August 31. In the event that vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction or clearing will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active.

BIO-3 A biologist will monitor all vegetation clearing and any other construction activities (at the discretion of a qualified biologist) for the duration of the project in areas adjacent to ESAs to flush any wildlife species present prior to construction and to ensure compliance with and proper implementation of vegetation removal, Best Management Practices (BMPs), and ESAs, and that all biological resource-related avoidance and minimization measures are properly adhered to.

BIO-4 Weed control will be implemented, and temporarily impacted areas will be revegetated with plant species that prevent the introduction or spread of invasive species. Eradication strategies will be implemented should an invasion of nonnative plant species occur.

The following measures will be incorporated to avoid and minimize project impacts to riparian/riverine habitats only.

BIO-5 All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated nonsensitive upland habitat areas. The designated upland areas will be located so as to prevent runoff from any spills from entering waters of the United States.

BIO-6 A construction Storm Water Pollution Prevention Plan (SWPPP) and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on site during construction and operation. The SWPPP will identify specific BMPs to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard. In addition, the SWPPP will contain provisions for changes to the plan, such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.

CSS in the BSA is not protected by any federal, State, or local regulations, with the exception of CAGN designated critical habitat and/or occupied areas. For areas that are not protected, no compensatory mitigation is required. Measure BIO-7 below will mitigate temporary and permanent impacts to CSS.

BIO-7 For coastal sage scrub (CSS) occupied by coastal California gnatcatcher (CAGN) or in CAGN designated critical habitat, the mitigation ratios will be consistent with the United States Fish and Wildlife (USFWS) standards. Compensatory mitigation may include off-site acquisition of conservation lands and restoration efforts to enhance or create CSS which could be accomplished through participation in the Natural Community Conservation Plan/Habitat

Conservation Plan/Master Streambed Alteration Agreement (NCCP/HCP/MSAA) being established by Measure M2.

In January 2010, OCTA, the Department, and the resource agencies executed a Planning Agreement and Memorandum of Agreement to initiate a NCCP/HCP/MSAA. The purpose of the NCCP/HCP/MSAA is to streamline the biological resources permitting process for the 13 Measure M2 freeway projects. This planning process commenced in July 2010 and is expected to be completed in a 24-month timeframe.

In September 2010, the OCTA Board of Directors authorized approximately $5.5 million for restoration activities consisting of six restoration projects. These restoration projects contain benefits to multiple habitats, such as riparian, upland, CSS, oak woodland, and native grassland. On a parallel path, OCTA is currently in the process of acquiring conservation lands that will be integrated into the NCCP/HCP/MSAA planning process. The acquisition properties possess the habitats and species necessary to off-set impacts from the 13 freeway projects.

If the NCCP/HCP/MSAA process gains approval to the I-5 HOV Lane Extension Project's permit stage, compensatory mitigation will be provided through the conservation planning effort. Options for compensatory mitigation will be evaluated through coordination among OCTA, the Department, and the resource agencies. If the project permit stage occurs prior to the approval of the NCCP/HCP/MSAA planning process, then compensatory mitigation will be identified and addressed through project-level analysis.